X RAYS IN THE TREATMENT OF DISEASES OF THE PALM.

By HALDIN DAVIS, M.R.C.P., F.R.C.S.,

ASSISTANT PHYSICIAN TO THE HOSPITAL FOR DISEASES OF THE SKIN,
BLACKFRIARS.

VERY soon after their discovery the therapeutic value of x rays in the treatment of skin diseases became manifest, and a proper knowledge of their powers has become increasingly necessary to the dermatologist. As is well known, they are extremely valuable in the treatment of rodent ulcer, lupus, mycosis fungoides, and other serious diseases of the skin, and in this country, at all events, the attention of the profession seems to have been concentrated on this aspect of their utility to the exclusion of the advantages they possess in dealing with such conditions as chronic eczema and psoriasis. There are very few references to this branch of the subject to be found in English; the earliest I have been able to find is a paper by Biddle.¹ Other earlier but Continental papers are by Albers-Schonberg² and Hahn, who published a series of 35 cases with uniformly good results. Wetterer³ in 1908 stated that he had treated several hundred cases of chronic eczema with x rays which without exception did well. In America, Williams⁴ in 1904 published several cases of eczema cured with the rays.

The best account of the treatment of eczema with x rays will, however, be found in a book recently written by Dr. Schultz,⁵ which has been translated into English. The whole subject of x -ray therapy is excellently and impartially treated in this work, and it is a great misfortune to the science and art of radiology that Dr. Schultz has recently died. Very little has been published in this country on the treatment of eczema with x rays, although as early as 1899 Thurstan Holland published in this JOURNAL a case of eczema of the hand cured in four sittings with x rays. This is almost the only paper on this branch of radio-therapeutics which has been published in this country. In *Light and X-Ray Treatment*, by Sir Malcolm Morris and S. E. Dore, the question is dismissed in about three lines, and about the same space is devoted to it in the last edition of the same authors' textbook and also in that of Dr. Sequeira.

Perhaps more attention has been given to the radio-therapeutics of psoriasis, no doubt because that complaint is more often refractory to the older methods of treatment. Still there are many cases of chronic eczema persisting over long periods which may almost without exception be cured with x rays. Among the most obstinate forms, often quite uninfluenced by the ordinary treatment with ointments and lotions, are those which affect the palms of the hands. In these cases the skin of the palms is thickened, the horny layer is much changed and exhibits both the phenomena of hyperkeratosis and parakeratosis, and as a consequence the natural lines of the palm are much deepened, and often become the sites of painful and troublesome cracks and fissures. The patients complain as a rule of great irritation, which is occasionally sufficiently severe to disturb their sleep. Psoriasis of the palm does not, perhaps, cause the patient so much discomfort, but it is equally refractory to treatment. It consists of sharply defined areas of scaling, sometimes accompanied by changes in the nails, but by no means always associated with typical psoriatic lesions on other parts of the body. In the absence of psoriasis on other parts of the body the diagnosis may be very difficult. I have lately had the opportunity of treating some cases falling into the above categories, and in view of the fact that so little attention has been directed to this method of treatment I think they are worthy of publication.

CASE I.—Palmar Eczema.

G. G., a gentleman aged about 48, a patient of Dr. Stocker. He had suffered for two years from typical palmar eczema with well-marked fissures and much hyperkeratosis. The subjective symptoms were not very severe—in fact, he was able to play golf in comfort when wearing gloves, but he complained of the unsightliness of the condition and the constant necessity for using lubricant applications to prevent the hands becoming stiff. He had used various plasters and ointments without much relief. The whole of the patient's skin was somewhat dry and he had a poor circulation, as was shown by the prominence of the venous network on his limbs. The eczema

had been supposed to be gouty, although there was no other sign of that condition, and otherwise he enjoyed excellent health. The examination of the urine disclosed nothing abnormal.

He was treated with x rays in the following manner: On September 2nd the left hand was exposed for seven minutes to a tube of equivalent spark-gap of 4 in. with 5 milliamperes of current passing through it, while the right hand was exposed for five minutes with the current gradually increasing from 0 to 1 milliampere. The distance of the anticathode from the skin was 8 in., and from measurements previously made with the same tube the whole dose was calculated to be about half a pastille dose.

On September 10th both hands were somewhat improved, especially the right. Each hand was given another half-pastille dose. On September 17th the hands were still more improved. Each palm received only a very small dose—about one-third of a pastille. On September 24th the palms were practically well, but some new cracks had appeared on the left thenar eminence, and this part, which had not previously been exposed to the rays, received half a pastille dose. On October 1st and on October 8th the left thenar eminence received about one-third of a pastille, and since then the patient has been quite well.

CASE II.—Palmar Eczema.

A lady, aged 68, who had definite articular gout, had suffered from fissured eczema of the palms for thirty years. When first seen on December 12th she had, in addition, patches of vesicular weeping eczema on the backs of the hands and also on the dorsal aspect of the third finger of the left hand just underneath her wedding-ring. She also had a patch of irritable erythema on the forehead.

The backs of the hands and the forehead were treated with zinc and ichthylol for a month and got quite well. On January 9th the palms were first x -rayed. They were given a dose of about two-thirds of a pastille each, and the same dose was repeated on January 23rd. On February 6th, except for being a little dry, the palms were quite well, there were no more fissures, and the patient said that the irritation had practically disappeared, so that she was able to sleep better than for many years. She said, however, there was still a little itching on the backs of the hands, and they therefore received half a pastille dose.

CASE III.—Palmar Psoriasis.

M. H., a woman aged 58, first came under my care at the Hospital for Diseases of the Skin, Blackfriars, on May 17th, 1912. She exhibited on the palms of both hands large peeling areas with well-defined margins. The natural lines were deeply cut, and in some places fissures had developed. The diagnosis of psoriasis was made because the condition was strictly confined to the palms, and there was not, as is usually the case in eczema, any inflammatory condition of the dorsal aspects of the phalanges. The nails, however, were, as is common in psoriasis, slightly pitted. The patient had suffered from this condition for eighteen months, although she had had much treatment.

She was treated at the Skin Hospital at first with tar and salicylic acid ointment, and for the first month made good progress, but afterwards relapsed. Various applications were tried without much success. Ultimately, however, on September 20th, 1912, she had a full pastille dose of x rays to both palms. On October 4th they were already much better, and on October 25th they were quite well, the first time for two years. Since then they have remained well.

As has been stated above, x rays are extremely useful in treating chronic eczema in most situations, but they are especially advantageous in the case of lesions situated upon the hands, because it is obviously very inconvenient to keep those almost indispensable appendages continually swathed in bandages, as is necessary if treatment with ointments is to have a fair chance of success.

REFERENCES.

- ¹ *American Quarterly Journal of Roentgenology*, vol. 1906-1907.
- ² *Fortschritte an der Gebiete der Röntgenstrahlungen*, 1898.
- ³ *Handbuch der Röntgentherapie*.
- ⁴ *Roentgen Rays in Medicine and Surgery*.
- ⁵ *X Rays in the Treatment of Skin Diseases*.

THE Maryland University School of Medicine has instituted a course of tropical medicine, under the direction of Surgeon J. A. Nydegger, of the United States Public Health Service, with the assistance of Dr. C. W. Stiles and other members of the same service.

PROFESSOR SHERIDAN DELÉPINE, in a paper on post-graduate teaching in tuberculosis, published recently in the *British Journal of Tuberculosis*, urges that tuberculosis officers selected by authorities should be allowed after their appointment to devote a part of the first year to the study of the special pathological, administrative, and clinical work to which they will have to devote themselves in the service of the public. This proposal seems to be on all-fours with the regulations which already exist with respect to the medical services of the army and navy.